

***FlyBy Math™* Alignment**  
**Colorado Model Content Standards and Benchmarks**  
**Amended 9-15-05**

**Standard 2:**

Students use algebraic methods to explore, model, and describe patterns and functions involving numbers, shapes, data, and graphs in problem-solving situations and communicate the reasoning used in solving these problems.

**Benchmarks**

1. model real-world phenomena (for example, distance versus- time relationships, compound interest, amortization tables, mortality rates) using functions, equations, inequalities, and matrices;

2. represent functional relationships using written explanations, tables, equations, and graphs, and describing the connections among these representations;

3. solve problems involving functional relationships using graphing calculators and/or computers as well as appropriate paper-and-pencil techniques;

***FlyBy Math™* Activities**

--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.

--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

**Standard 5:**

Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems.

**Benchmarks**

1. measure quantities indirectly using techniques of algebra, geometry, or trigonometry;

2. select and use appropriate techniques and tools to measure quantities in order to achieve specified degrees of precision, accuracy, and error (or tolerance) of measurements;

***FlyBy Math™* Activities**

--Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.

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**Standard 6:**

Students link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper-and-pencil, calculators, and computers, in problem-solving situations and communicate the reasoning used in solving these problems.

**Benchmarks**

1. use ratios, proportions, and percents in problem-solving situations.

***FlyBy Math™* Activities**

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.